

REMARKS

Favorable reconsideration of this application is requested in light of the following remarks.

Claims 1, 5, 6, 9, 12, 14, 17, 20, 21, and 25-28 are present in this application. Claims 1, 9, 14 and 19 are amended and claim 3 is canceled by way of the present amendment.

Claims 1, 3, 9, 14, 19 and 20 stand rejected under 35 U.S.C. §112, second paragraph. Claims 1, 14 and 20 stand rejected under 35 U.S.C. §102(b) over JP 073-10187 (Nozawa et al.), claim 3 stands rejected under 35 U.S.C. §103(a) over Nozawa et al. in view of US 4,282,924 (Faretra) and claims 9 and 19 stand rejected under 35 U.S.C. §103(a) over Nozawa et al. in view of US 5,405,491 (Shahvandi et al.)

The Applicants greatly appreciate the allowance of claims 5, 6, 12, 17, 21 and 25-28.

In claims 1 and 14, the worktable is conductive, the focus ring consists essentially of an electrically conductive material, and the heat transfer medium consists essentially of an electrically conductive and heat-resistant elastic member selected from the group consisting of conductive silicon rubber and conductive fluororubber. The worktable and focus ring may be maintained at the same potential. As a consequence, the focus ring may work as an electrode portion with substantially the same potential as the worktable. The plasma may be expanded thereby improving the planar uniformity of plasma density over the target, such as a wafer.

Turning to the rejections of the claims, claims 1 and 14 recite a focus ring consisting essentially of an electrically conductive material. Withdrawal of the §112 rejection is respectfully requested.

Claims 1 and 14 also recite an electrically conductive worktable and a heat transfer medium consisting essentially of an electrically conductive and heat-resistant elastic member.

The device of claims 1 and 14 is not suggested by the applied prior art, as will explained below.

The Nozawa et al. reference discloses a protection plate 6 disposed on a worktable 8 to surround a target substrate 2. A gas is supplied between the protection plate 6 and worktable 8 through a line 20. A cooling mechanism 15 is built in the worktable 8 to cool the gas. However, Nozawa et al. uses a gas as the heat transfer medium, and makes no suggestion of a heat transfer medium consisting essentially of an electrically conductive and heat-resistant elastic member, as recognized in paragraph 4 of the Office Action. Also, there is no suggestion of a focus ring consisting essentially of a conductive material. Clearly, claims 1 and 14 are patentable over Nozawa et al.

Faretra discloses a pliable thermally conductive member covering a platen. However, there is no suggestion of an electrically conductive member as recited in claims 1 and 14.

Claims 1 and 14 are patentable over the applied prior art and therefore in condition for allowance.

With regard to claims 9 and 19, as pointed out previously, Shahvandi et al. discloses a mechanical clamp for holding a wafer. The clamp is an ordinary clamp movable up and down to accommodate wafers frequently exchanged. Applying such a clamp to a focus ring not frequently exchanged is a waste of money, and thus is not reasonable or obvious to a person skilled in this art. Claims 9 and 19 are also patentable over the applied prior and therefore in condition for allowance.

Appl. No. 09/840,178 Amendment Dated: May 25, 2003 Reply to Office Action dated February 25, 2003

Finally, the attention of the Patent Office is directed to the change of address of Applicants' representative, effective January 6, 2003:

Oblon, Spivak, McClelland, Maier & Neustadt, P.C.

1940 Duke Street

Alexandria, VA 22314

Please direct all future communications to this new address.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, P.C.

Gregory J. Maier

Registration No. 25,599

Carl E. Schlier

Registration No. 34,426

Attorneys of Record

22850

703-413-3000 703-413-2220 Fax GJM:CES/maj I:\atty\CES\206342US.AM1.DOC